

# INEOS Novodur<sup>®</sup> 440

Categories: Polymer; Thermoplastic; ABS Polymer; Acrylonitrile Butadiene Styrene (ABS), Molded  
 Material Notes: Novodur<sup>®</sup> 440 is an injection molding grade of ABS with medium impact, medium flow and high gloss. High gloss, Medium impact strength, Easy flowing. Applications: Home appliances, Electrical and electronics, General Injection, Molding Application, Toys, Sport & Leisure  
 Information provided by Styrolution.

Physical Properties	Metric	English	Comments
Density	1.05 g/cc	0.0379 lb/in <sup>3</sup>	ISO 1183
Linear Mold Shrinkage	0.0040 - 0.0060 cm/cm	0.0040 - 0.0060 in/in	ISO 294-4
Melt Flow	20 g/10 min @Load 10.0 kg, Temperature 220 °C	20 g/10 min @Load 22.0 lb, Temperature 428 °F	Volumetric; cm <sup>3</sup> /10 min; ISO 1133

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	112 MPa	16200 psi	ISO 2039-1
Tensile Strength	34.0 MPa	4930 psi	ISO 527
Tensile Strength, Yield	48.0 MPa	6960 psi	ISO 527
Elongation at Break	20 %	20 %	ISO 527
Tensile Modulus	2.50 GPa	363 ksi	ISO 527
Flexural Strength	71.0 MPa	10300 psi	ISO 178
Flexural Modulus	2.40 GPa	348 ksi	ISO 178
Izod Impact, Notched (ISO)	8.00 kJ/m <sup>2</sup> @Temperature -20.0 °C	3.81 ft-lb/in <sup>2</sup> @Temperature -4.00 °F	ISO 180/A
	14.0 kJ/m <sup>2</sup> @Temperature -30.0 °C	6.66 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 180/A
	19.0 kJ/m <sup>2</sup> @Temperature 23.0 °C	9.04 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 180/A

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	96.0 °C	205 °F	annealed 4 hours at 80°C; ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	92.0 °C	198 °F	annealed 4 hours at 80°C; ISO 75
Vicat Softening Point	99.0 °C @Load 5.10 kg	210 °F @Load 11.2 lb	B/2 120C/H; ASTM D 1525

Optical Properties	Metric	English	Comments
Gloss	90 %	90 %	at 60°, specular; ASTM D523